

Table 1 Summary of Estimated Phosphorus Load Reductions to Lake Okeechobee

Watershed Baseline Data					Implementation Stage - Levels 1 and 2														Alternative #1 Load Reduction Management Measures (8)			Alternative #2 Load Reduction Management Measures (9)			Alternative #3 Load Reduction Management Measures (10)			Alternative #4 Load Reduction Management Measures (11)								
Subwatershed	Area (acres)	Average Annual Discharge (Measured) (1991- 2005) (Acre-ft)	Average Annual P Load (Measured) (1991- 2005) (Mtons)	Average Annual P Conc. (Calculate d) (1991- 2005) (ppb)	Owner Implemented BMPs (1)		Funded Typ. Cost Share BMPs (2)		Watershed P Control Projects (3)		Regional Public Works Projects (4)		Typ. Cost-Share BMPs that Require Future Funding (5)		Additional Agricultural BMPs (6)		Other Regional Projects (7)																			
					Load Red. (Mtons)	Remain. Load (Mtons)	Load Red. (Mtons)	Remain. Load (Mtons)	Load Red. (Mtons)	Remain. Load (Mtons)	Load Red. (Mtons)	Adjusted Remain. Load* (Mtons)	Load Red. (Mtons)	Adjusted Remain. Load* (Mtons)	Load Red. (Mtons)	Adjusted Remain. Load* (Mtons)	Load Red. (Mtons)	Remain. Conc. (ppb)	Adjusted Remain. Load* (Mtons)	Load Red. (Mtons)	Remain. Conc. (ppb)	Adjusted Remain. Load* (Mtons)	Load Red. (Mtons)	Remain. Conc. (ppb)	Adjusted Remain. Load* (Mtons)	Load Red. (Mtons)	Remain. Conc. (ppb)	Adjusted Remain. Load* (Mtons)								
Upper Kissimmee (S-65)**	1,021,674	954,204	91	78	7	91	0	91	0	91	13	78	8	78	7	78	0	78	4	63	74	10	55	65	0	63	74	14	51	60						
Lower Kissimmee (S-65A,B,C,D,E)	429,283	378,836	77	166	10	68	13	55	11	45	7	37	8	29	8	21	0	21	8	29	14	0	30	14	0	30	14	0	30	14						
Taylor Creek/Nubbin Slough (S-191,154,133,135)	198,299	187,583	124	537	12	112	17	95	19	76	1	75	10	65	13	52	10	42	15	113	26	0	113	26	12	64	15	14	52	12						
Lake Istokpoga (S-68)**	392,147	299,656	23	63	2	23	0	23	0	23	0	23	3	23	3	23	0	23	0	63	23	3	55	20	12	30	11	9	38	14						
Indian Prairie Basins (12 basins)	294,147	249,175	89	289	11	78	1	77	2	75	0	75	12	63	9	53	2	51	36	50	15	0	50	15	6	30	9	1	46	14						
Fisheating Creek & Nicodemus Slough (Culv 5)	315,007	224,368	55	199	5	50	0	50	0	50	0	50	7	43	3	39	0	39	0	143	39	3	133	37	31	30	8	18	78	21						
West Lake Okeechobee Basin (S-77) ***	200,993	5,835	1	139	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	139	1	0	139	1	0	139	1	0	139	1						
EAA Basins	361,707	149,488	33	177	2	31	0	31	0	31	21	12	0	12	0	12	0	12	0	66	12	0	66	12	3	52	10	3	52	10						
East Lake Okeechobee Basins (C-44, L-8)	237,831	109,134	20	151	2	18	0	18	0	18	7	12	2	9	2	8	0	8	0	57	8	0	57	8	0	57	8	0	57	8						
Total Reductions to the Lake	3,451,087	2,558,279	514	163	41	473	31	442	32	410	47	363	39	324	36	288	13	275	62	67	213	15	63	198	63	48	150	59	49	154						
Reductions to In-Lake Load																		0			36			0			74									
TMDL (not including 35 t of atmospheric deposition)																		105			105			105			105			105			105			105
Remaining Load																		170			108			93			45			49			49			

Notes:

- (1) Reduction resulting from Owner BMPs - applied to all basins except eight EAA basins.
- (2) Reduction resulting from cost-share BMPs implemented with federal and state subsidies.
- (3) Reduction due to ongoing watershed projects: PSCGP, Dairy BATs, Isolated Wetlands, etc.
- (4) Reduction resulting from implementation of EAA Reservoir (11 t), C-44 Reservoir (7 t), LO Critical Projects (1 t), Kissimmee River Restoration (KRR) (20 t), and the ECP/Diversions (BMPs for 8 of the 10 EAA basins have been realized in 2005) (9 t).
- (5) Typical BMPs implemented by land owners with government cost-share.
- (6) Chemical treatment with retention/detention for Citrus, Dairy, Row crop, Ornamentals, and Sod.
- (7) Reductions from Lemkin Creek STA (1.1 t), Brighton Reserve Reservoir and ASR (2.3 t), Taylor Creek ASR (1.2 t), Kissimmee ASR (0.1 t), and the LOER fast track project - Lakeside ranch STA (8 t).
- (8) Alternative 1 reductions include Taylor Creek Reservoir (2 t), Brady Ranch STA (5 t), Paradise Run ASR (1.4 t), and LOWP projects (54.3 t) (5% reduction for UK, 30% for LK, 20% for TCNS, and 70% for IP).
- (9) Alternative 2 reductions include Kissimmee reservoir east (6.5 t), Istokpoga/Kissimmee reservoir (6.2 t), and Fisheating Creek reservoir (2.6 t). They are additive to Alternative 1 reductions.
- (10) Alternative 3 reductions include S-154 deep injection wells (9 t), S-133 water quality treatment (2.5 t), S-68 STA (8 t), Istokpoga canal RASTA (10 t), FEC RASTA (31.2 t), and Clewiston STA (2.5 t). They are also additive to Alternative 1 reductions, but Alternatives 2 and 3 are independent.
- (11) Alternative 4 reductions include S-154 deep injection wells (9 t), S-133 water quality treatment (2.5 t), Taylor Creek STA (net benefit of 4 t including 6 t from STA minus 2 t from reservoir already included in Alt. 1), S-68 STA (8 t), Istokpoga/Kissimmee RASTA (8.9 t), Kissimmee reservoir east (6.5 t), Fisheating Creek RASTAs and Nicodemus Slough RASTA (18 t), and Clewiston STA (2.5 t). They are also additive to Alternative 1 reductions, but Alternatives 2, 3 and 4 are independent.

* To be conservative, where reductions were projected to result in concentrations less than 30 ppb, the remaining load was estimated by multiplying the basin flow by 30 ppb instead of a lower projected concentration.

** Reductions from implementing BMPs were applied to individual land uses within the Lake Kissimmee and Lake Istokpoga basins. However, these reductions will have little or no short-term improvement on what is leaving the basins due to lakes' internal buffering effects. Therefore, these load reductions were not carried through the remaining spreadsheet.

***The loads into Lake Okeechobee from the East Caloosahatchee basin are small due to the manner in which the basin operates. Therefore, reductions associated with BMP projects in the Caloosahatchee will benefit primarily the basin itself and load reduction to the lake has been shown.